

those kinds of *crustaceous* creatures, especially about their bellies, and seem'd of three kinds; the head F seem'd cover'd with a kind of scaly shell, the *thorax* with two smooth shells, or Rings, G G, and the belly with eight knobb'd ones. I could not certainly find whether it had under these last shells any wings, but I suspect the contrary; for I have not found any wing'd Insect with eight leggs, two of those leggs being always converted into wings, and, for the most part, those that have but six, have wings.

This creature, though I could never meet with more than one of them, and so could not make so many examinations of it as otherwise I would, I did notwithstanding, by reason of the great curiosity that appear'd to me in its shape, delineate it, to shew that, in all likelihood, Nature had crouded together into this very minute Insect, as many, and as excellent contrivances, as into the body of a very large Crab, which exceeds it in bulk, perhaps, some Millions of times; for as to all the apparent parts, there is a greater rather than a less multiplicity of parts, each legg has as many parts, and as many joints as a Crabs, nay, and as many hairs or bristles; and the like may be in all the other visible parts; and 'tis very likely, that the internal curiosities are not less excellent: It being a general rule in Nature's proceedings, that where she begins to display any excellency, if the subject be further search'd into, it will manifest, that there is not less curiosity in those parts which our single eye cannot reach, then in those which are more obvious.

Observ. LII. Of the small Silver-colour'd Book-worm.

Among greater Animals there are many that are scaled, both for ornament and defence, so are there not wanting such also among the lesser bodies of Insects, whereof this little creature gives us an Instance. It is a small white Silver-shining Worm or Moth, which I found much conversant among Books and Papers, and is suppos'd to be that which corrodes and eats holes through the leaves and covers; it appears to the naked eye, as small glistering Pearl-colour'd Moth, which upon the removing of Books and Papers in the Summer, is often observ'd very nimbly to scud, and pack away to some lurking cranney, where it may the better protect it self from any appearing dangers. Its head appears bigg and blunt, and its body tapers from it towards the tail, smaller and smaller, being shap'd almost like a Carret.

This the *Microscopical* appearance will more plainly manifest, which exhibits, in the third *Figure* of the 33. *Scheme*, a conical body, divided into fourteen several partitions, being the appearance of so many several shells, or shields that cover the whole body, every of these shells are again cover'd or tiled over with a multitude of thin transparent scales, which, from the multiplicity of their reflecting surfaces, make the whole Animal appear of a perfect Pearl-colour.

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Which, by the way, may hint us the reason of that so much admired appearance of those so highly esteem'd bodies, as also of the like in mother of Pearl-shells, and in multitudes of other shelly Sea-substances; for they each of them consisting of an infinite number of very thin shells or laminated orbiculations, cause such multitudes of reflections, that the compositions of them together with the reflections of others that are so thin as to afford colours (of which I elsewhere give the reason) gives a very pleasant reflection of light. And that this is the true cause, seems likely; first, because all those so appearing bodies are compounded of multitudes of plated substances. And next that, by ordering any transparent substance after this manner, the like *Phænomena* may be produc'd; this will be made very obvious by the blowing of Glas into exceeding thin shells, and then breaking them into scales, which any lamp-worker will presently do; for a good quantity of these scales, laid in a heap together, have much the same resemblance of Pearls. Another way, not less instructive and pleasant, is a way which I have several times done, which is by working and tossing, as 'twere, a parcel of pure crystalline glas whilst it is kept glowing hot in the blown flame of a Lamp, for, by that means, that purely transparent body will be so divided into an infinite number of plates, or small strings, with interpos'd aerial plates and fibres, that from the multiplicity of the reflections from each of those internal surfaces, it may be drawn out into curious Pearl-like or Silver wire, which though small, will yet be opacous; the same thing I have done with a composition of red *Colophon* and *Turpentine*, and a little Bee's Wax, and may be done likewise with Birdlime, and such like glutinous and transparent bodies: But to return to our description.

The small blunt head of this Insect was furnish'd on either side of it with a cluster of eyes, each of which seem'd to contain but a very few, in comparison of what I had observ'd the clusters of other Insects to abound with; each of these clusters were beset with a row of small bristles, much like the *cilia* or hairs on the eye-lids, and, perhaps, they serv'd for the same purpose. It had two long horns before, which were streight, and tapering towards the top, curiously ring'd or knobb'd, and bristled much like the Marsh Weed, call'd Horse-tail, or Cats-tail, having at each knot a fring'd Girdle, as I may so call it, of smaller hairs, and several bigger and larger bristles, here and there dispers'd among them: besides these, it had two shorter horns, or feelers, which were knotted and fring'd, just as the former, but wanted bristles, and were blunt at the ends; the hinder part of the creature was terminated with three tails, in every particular resembling the two longer horns that grew out of the head: The leggs of it were scal'd and hair'd much like the rest, but are not express'd in this *Figure*, the Moth being intangled all in Gléw, and so the leggs of this appear'd not through the Glas which looked perpendicularly upon the back.

This Animal probably feeds upon the Paper and covers of Books, and perforates in them several small round holes, finding, perhaps, a convenient nourishment in those husks of Hemp and Flax, which have pass'd through

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